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Control of Indirect Labour

BY R. PRESGRAVE
York Knitting Mills, Ltd., Toronto

(Before Toronto Chapter, November 23, 1931)

A CATEGORICAL definition of indirect or non-productive labour would no doubt be the correct starting point for our discussion and I would gladly give this if I did not find it almost impossible to suggest a terse definition which, when applied to a specific case, would make a positive classification. However I am quite sure that everyone here has in his mind a fairly clear visualization of the idea in its general scope.

The difficulty is that, while we can define the terms academically, in actual practice there is no sharp distinction between direct and indirect work. The extremes are clear enough to fully satisfy a definition, but there are numbers of border-line cases which are classified by purely arbitrary decisions, influenced largely by the type of wage payment plan in use.

In practice these arbitrary decisions cover virtually the whole field of Indirect labour. For instance some plants choose to regard all work other than piece work as indirect, including it in their costing as a straight percentage over piece work. On the other hand, a group incentive plan may be so devised that factory indirect labour is entirely obviated as a clerical element in costing and in wage payment.

I should hesitate to say that either of these extremes represent correct practice or vice versa, but my affections lean towards the latter situation and I would say that in general, the cost and labour set-up which uses small indirect ratios stands a better chance of being applicable in controlling those ratios.

Information for Control

This brings forward the salient feature—control. And furthermore suggests the common but fallacious idea that a system can be devised to control any given labour condition. No clerical system controls. The most any scheme can do is to provide information upon which decisions may be based and which may point out courses of procedure. Even piece work in all its simplicity and directness does not control. It suggests, usually quite pointedly, how the worker should perform. It also suggests, perhaps less pointedly, what the supervision should do about it if the worker does not play the game according to the rules. As in athletics the rules prescribe the players' scope of activity, but the players themselves make the game.

Obviously enough, if we wish to control indirect labour, we should have a plan that will provide us just the right amount of the right information that will enable us to take whatever is the proper action for any situation that may develop. Without making a plan or even suggesting any special system I should like to touch on some of the high lights that appear when one commences to analyse the situations and devise methods. If I use the word "piece-rate" here and there it will be in a wide sense to include any form of individual or group incentive.

The first steps to controlling the situation are analysis and measurement. These can come about by actual time study and observation and by previous records. All of these to be tempered by opinion. I take it for granted that this is accepted and that the time study will be used wherever feasible.

Types of Indirect Labour

Our studies will not have progressed very far before we shall find that there are two fairly distinct phases of indirect labour. The physical phase in which achievement is largely the product of time; and the mental phase in which time is a negligible factor. The one can usually be subjected to time-study, the other cannot. Sweeping is typical of the first; supervision of the second.

We shall deal first with the physical type and follow it right through to a definite conclusion. We find at once that the physical also divides into two phases which shade into each other, but are recognizable. The first phase is the cyclical, or repetitive, and is well exemplified in sweeping where a routine is followed. The second is irregular, intermittent and unpredictable, such as machine repairs, job changeovers, etc.

The Repetitive Job

Naturally the repetitive job is one that best lends itself to time-study and accurate measurement. Its control would be cut and dried, if it also did not split into two parts. One of these phases of cyclical work is a function of direct production. For instance a trucker or handler keeping direct operators supplied with materials usually works in direct proportion to the operators. The other phase may be equally or even more repetitive yet bear no relationship whatever to the volume of productive work. This is well typified by window cleaning.

A moment's consideration of the former of these last two types will reveal that what we really have here is a direct operator, at least as nearly as we can define such. Yet workers of the type are commonly regarded as indirect. There are two reasons for this vagueness. Firstly the wages of handlers are usually on a day work basis and secondly we tend to look at the operator instead of at the job.

I will elucidate this last point by taking an actual example from our own plant. Our yarn winders wind from small bobbins to large cones, disposing of two thousand or so bobbins a day. These bobbins are placed, for immediate handling, in long troughs at the level of the operator's knees, but are delivered to the department in large box-trucks. Originally the operators themselves transferred the bobbins from the boxes to the trough and the time thus consumed, from 3 to 5% of the working day, was presumably taken care of in the piece rate.

After time study, for several reasons it was considered better to have boys to make the rounds, keeping the troughs full. These boys were hired on time work and were regarded as Indirect staff under the classification of handlers. Thus a job that was originally direct, at least by implication, became indirect. Later we revised this by taking further studies and setting the handlers up as direct operators.

This illustrates in part what I mean when I say we are tempted to look at the operator and not at the job. An intelligent analysis of a job will often reveal that it consists of two or more types of

indirect work, each requiring separate recognition and control. Or it may be part direct and part indirect.

Before leaving this phase of indirect work, which should really be called direct, I should like to lay down the fairly safe rule that any repetitive operation that is in proportion to some recognized direct work should be treated as direct work from a wage-incentive and from a cost-control standpoint.

The next phase we encountered was that of repetitive work that has little or no relationship to direct production. We saw window cleaning as a shining example. There is no reason at all why such a job cannot be studied and set up on a piece-work basis. The only difference from the previous type is that it cannot very well be included in the direct labour cost. It must go in departmental indirect, in general factory expense, or even in rent. Its allocation is a matter for personal preference. We are interested in control and that comes in two ways (A) In deciding the extent and frequency of the work and (B) in placing a piece rate after time-study.

Non-Repetitive Tasks

Returning to the physical non-repetitive phase, we find that while it is, in a measure and over a long period, proportionate to direct volume, it is not cyclical and in some cases, such as machine overhauling, is likely to be at its zenith when production is at its nadir.

The extent of these fluctuations is what determines our procedure here. If they are not too extreme and if our records show that the averages for, say, monthly periods are reasonably equal, it seems to me that the first step is to take protracted time-studies, using these in conjunction with past records and considered opinion to arrive at a standard ratio between this group and the direct production.

The control will best come by an incentive plan that will pay bonus for beating standard ratio. The more even the proportion the shorter the bonus periods need to be. If there are heavy peaks and valleys the bonus period may have to be a whole year, in which case the incentive is almost vitiated and we should probably do better to go no further than a common budget plus the judgment of management for day by day control. This group of more or less proportionate but relatively non-cyclical work forms in most plants the main body of true indirect staff and as far as I can judge the best, if not the only, method of incentive and control is by the standard ratio plan, with some adequate form of reward for achieving or beating standard

Along with this group we can usually include the mental phase at least for incentive purposes. Of course time-studies of this latter are almost meaningless and we are forced to depend largely upon arbitrary decision.

At the last meeting, Mr. MacPhee stressed the necessity for choosing the proper unit, and at this point we are confronted with the choice of two units upon which to base our indirect ratios. They are, of course, time and money. Shall we set up a standard ratio between direct payroll and indirect payroll or between direct hours and indirect hours.

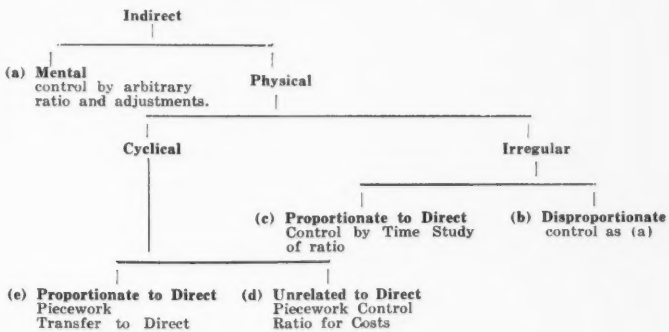
My answer is that we should do both. The money basis is just what we need for cost purposes and for knowing how much we are deviating from standard. On the other hand the money basis is unfair to the indirect staff by reason of the fact that if departmental production dropped 50% it would be a most unusual thing for the indirect payroll to drop 50%, while it might be quite possible for

indirect hours to drop 50%. It should hardly be necessary for me to state that the reason for this is that the higher priced staff are almost always the ones retained. This situation was well covered in a paper last season, appearing in the December 1930 issue of "Cost and Management".

Even on a time basis we may have to make certain allowances for circumstances beyond the control of the department. We might for instance include supervision in the money set-up and omit it from the time set-up. However the subject of Indirect adjustments is quite involved and we cannot take time for it here except to say that the further removed the Indirect work is from cyclical regularity, the more necessary it will become to make arbitrary allowances and to invent sliding scales. In conclusion, there is one instance of indirect work that I have never seen or heard discussed, yet I hardly believe that it is confined to our business. It is the item of indirect work necessarily performed by direct workers in the course of their duties and is exemplified by sewing machine operations, in the changing of colours and in changing from one machine to another. In some departments it runs to something over 2% of the Direct time.

In our set-up each type of change has been studied and has a piece-rate set upon it so that the worker is protected. However in its nature this work is decidedly non-productive and the less there is of it the better we like it. A certain amount of it is inevitable, but careful watching by foreladies will hold it to a minimum, so that we have allowed definite ratios for it in our department set-ups, and it is to the financial advantage of supervisors and handlers to see that it is held down.

The following diagram summarizes the crude distribution of Indirect labour discussed above.



Cost System for Metal Trades

BY NORMAN TERRY
Canadian Sumner Iron Works, Ltd., Vancouver

(Before Vancouver Chapter, January 12, 1932)

THE popular slogan, "competition in the life of trade", has been proven in so many places and on so many occasions that it may seem a fallacy to state that in the metal trade industry, generally speaking and in Vancouver in particular, the slogan could quite accurately be changed to "the life of the metal trade for competition." Prices have been slashed so recklessly, uselessly and without thought of costs so many times that one begins to feel that the foundries and machine shops of Vancouver district are like the children of Israel looking longingly for their Moses with a simple yet informative cost system to lead them across the Red Sea to the promised land of prosperity. Some years ago the principals of our company had the foresight and courage to form the nucleus of a system which today has developed into a permanent institution.

This system gives us, on the 10th of each month at the latest, a synopsis of the cost of each order or job of the previous month in the most minute detail, comparative statements of monthly trading accounts with profit and loss and balance sheets. With the details of the cost of all the items of manufacture for the last few years compiled and indexed for ready reference we are placed in an excellent position to prepare selling prices based on actual costs rather than what seems to be the popular method: "cutting ten per cent below the other fellow's price." Now for the description of the cost system we use.

Individual Cost Records

The primary consideration is to obtain the individual cost of every article we manufacture, as accurately, speedily and completely as possible. First to ensure accuracy all figures used co-ordinate into the books of account and finally from the balance in our monthly balance sheet. Therefore our individual cost records are actually subsidiary ledgers. Secondly, speed is naturally an important factor and our time cards, material reports and overhead details are so systemized that we can ascertain the cost of each job the day it is completed. The financial status of the complete business at the close of each month showing the amount of work in progress, and stock on hand, profit and loss statement, is obtainable on the 19th of the next month. Third, the assembly of these details is the obstacle that so many companies have found hard to overcome and some have gone so far as to say "it can't be done." It is true that to expect moulders who are working among wet black sand all day and foundry helpers used to handling ladles of moulten metal to write out details of work done on daily time cards, is probably expecting too much. Or to receive from machinists and fitters who are working among oil, grease and machinery, information of materials used and time spent in such a way to complete cost records, may be questioned, but is being successfully managed at our plant. Time cards and forms designed so that the workman has the minimum to enter is the means we employ. These cards hang near his machine or work-bench and are collected daily by the time-keeper who also fills the role of storekeeper.

Three Stages

The cost system, therefore, entails three important endeavors, first assembly of details, second compiling and entering these details into the books of account, and third the preparation of monthly reports and comparative statements from the books. The monthly figures show manufacturing costs and administration costs quite distinctly. The former being divided into three individual departments—foundry, pattern shop and machine shop. The administrative costs we classify in groups headed, selling, office, cartage, and incidentals which includes, interest, exchange, discounts, etc. The administration costs are controlled in the office and need little explanation and I, therefore, will concentrate on the manufacturing cost elements.

An Illustration

This can probably be explained better by using an actual illustration. Let us suppose the B. C. Lumber Company place an order for several items of our machinery, which will entail new patterns from the pattern shop, castings from the foundry, and require machine work in the machine shop. This order is entered into our order-register, given a job number and hereafter all time and materials used will be charged to that number. The complete order is then typed, stating all information of sizes, pattern numbers, shipping instructions, etc., five copies being made. One for the pattern shop, foundry, and machine shop and two for office records, one filed alphabetically forming the permanent record, and the other numerically, which is used for invoicing. When the order is received in the plant, the superintendent in preparing the work, forwards a material requisition to the office for all material to be purchased (exhibit A), and another to the storekeeper for materials to be used from shop inventory (exhibit B). These articles are purchased or set aside and subsequently charged to the respective job number, any excesses are credited to the job and returned to stock on a credit requisition (exhibit C). All these requisitions are priced by the storekeeper from the perpetual inventory record which is kept under his jurisdiction.

When the order is received in the pattern shop, the pattern shop foreman makes out a separate pattern card for every pattern to be used, which states the number to be made of each, and he has the necessary new patterns made, altered or repaired and with this card fastened to each pattern, the patterns pass into the foundry for moulding.

In connection with castings manufactured, a foundry report is completed each day, Form 19, for each class of castings made, such as iron, brass, aluminum, etc. and extended to show whether good or rejected castings. These are filed with the office daily and are extended at a price per pound, based either on the particular size or particular construction of the castings and the estimated price is arrived at based on previous performances. The raw materials melted to produce these castings are also stated and priced by the storekeeper from inventory prices.

All labor spent is also recorded against each job by every workman. Each and every employee files a time card for all labor spent. The foundry employees on the foundry time cards (exhibit D) by making a cross opposite the kind of work done, the number of hours spent etc.; the patternmakers enter their time on the pattern time card (exhibit E), describing whether new patterns, alterations; and the machine shop employees by signifying on the machine shop time

card (exhibit F) the kind of machining or work done. These time cards are collected daily by the timekeeper, checked for completeness against the time clock, priced with the rate of wage paid and then filed under the various job numbers. When the job is completed in each department, all time cards, material requisitions, sketches, etc., are sent, together with the receipted delivery slip or bill of lading to the office for costing. Thus is a brief synopsis of the compiling of information in the factory. Now for entering on the cost records.

The Cost Ledger

The principle book, the cost ledger, is a loose leaf book composed of cost sheets (exhibit G), one for each job, filed numerically, upon which is amalgamated all the labor, material, castings, patterns, used to complete the job or order. The total of these figures however, does not include that mystery of mysteries—overhead. We base our overhead to be one hundred percent of productive labor and our estimated and actual figures have varied very little over a twelve month period. So that if the labor on our particular job as shown by the time cards is $150.00, we would estimate our indirect operating expenses or overhead excluding administration expenses to be another $150.00, add this and the cost is complete. At the end of the month, totals of all these cost sheets are compiled on a cost synopsis sheet known to us as the monthly work sheet. This sheet is the master key of all our entries, its totals must agree with sales invoices, payroll book, purchase journal and totals of the foundry reports. It is foolscap size with 12 columns. The particulars of each job are entered in each corresponding column and the totals are balanced, posted into the general ledger through the journal and finally used in the profit and loss statement and the balance sheet. Column one—is the sales invoice prices, and balances with the daybook. Column two—the total cost of the jobs completed. Column three—shows all capital asset items made for our own use, such as stock patterns, tools and equipment. Column four—shows the value of jobs still incomplete and balances with the "work in progress" account in the general ledger. Column five—details all castings and parts of machinery manufactured for stock. Column six—records the costs of each job at the beginning of the month anl naturally balances with the balance of the "work in progress" account in the general ledger on the last day of the previous month. Column seven—shows the labor spent on each job and balances with the payroll synopsis. Column eight—shows the estimated overhead which as already stated, is 100% of productive labor. Column nine—shows the material used during the month and the total agrees with the amount drawn from stores for jobs plus the total of material purchased for specified jobs. Column ten—records all castings manufactured in the Iron Foundry and balances with the monthly total of the daily foundry reports of castings made. Column eleven—shows the value of castings made in the non-ferrous foundry and also balances with the months total of daily foundry reports. Column twelve—is used to list foundry direct labor and while the total balances with the payroll synopsis, the figures are used only for comparative purposes. To double check the accuracy of these figures, the grand totals of columns two to five inclusive agrees with the grand total of columns six to eleven inclusive. This work sheet when completed gives a fund of information of the monthly activities and shows at a glance the selling and cost prices of each job as well as total for the month. It also guarantees when balanced, that the cost figures used are accurate, which is

most valuable. In addition, the totals of the columns serve the basis of journal entries for general ledger posting and with this completed and a trial balance of the general ledger made, a monthly profit and loss statement is a simple procedure. Items of indirect expenses, such as depreciation, rent, taxes, insurance, compensation assessment, etc., are set up annually and charged to the various operating accounts monthly through a standardized journal entry. Therefore, each operating department, and there are three in our business, foundry, pattern shop and machine shop, have two accounts. One showing a credit balance, which is credited with the estimated cost figures, and the other carrying a debit balance which is charged with actual costs of depreciation, rent, taxes, wages, material used, etc. The difference between these two accounts will show how much the estimated figures vary with actual results and our objective is to make the difference as small as possible and endeavor to make it disappear. The details from these general ledger accounts are tabulated on forms arranged to suit the convenience of the management and may be of interest to you. We are able to give vital information on these forms and result in the objective of all cost systems:—the locating of losses, and leaks in the administration of any department.

We realize that our system is far from perfect, but what system is? However, it is designed elastic enough to be readily altered to meet changing conditions. I realize also that it is no small task to describe to you in a few minutes the many intricate details that are involved and I have endeavored to pick out the items that would be of general interest. If, therefore, it has been possible to throw a glimmer of light across the dark and dreary pathway that we cost accountants must tread, I feel my time has not been misspent and let us hope you have not been too wearied.

EXHIBIT A

Order No. .....

CANADIAN SUMNER IRON WORKS LTD.

To the OFFICE

Please order the following material charging to above order number.

Quantity	Description	Weight	Cost	Per	Cost

.....Foreman

..... 193 .....

EXHIBIT B

Order No. .....

CANADIAN SUMNER IRON WORKS LTD.

To the STOREKEEPER

Please deliver to the bearer the following material charging to above order number.

Quantity	Description	Weight	Cost	Per	Cost

.....Foreman

..... 193 .....

EXHIBIT C

Order No. .....

CANADIAN SUMNER IRON WORKS LTD.

To the STOREKEEPER
Please Receive the following material crediting to above order number.

Quantity	Description	Weight	Cost	Per	Cost
	.....				.....Foreman
..... 193		.....			

EXHIBIT D

CANADIAN SUMNER IRON WORKS LTD.
FOUNDRY TIME CARD

Date ..... 193 ....

Name ..... Clock No. ..... $ .....

Moulding	Inter. Shoes	No. of Hours	JOB No.
Coremaking	Pouring		PATT. No.
Cleaning	Breaking Iron		No. MADE
City Shoes	Helping		

EXHIBIT E

PATTERN SHOP TIME CARDS

Job No. ..... Part No. .....
No. Ordered ..... No. Finished .....
Description of work to be done
Employee .....No. ..... Date .....
Started .....Finished .....Total Hours.....

EXHIBIT F

MACHINE SHOP TIME CARD

WORK DONE	REMARKS		Job No. .....
Turn			Part No. .....
Hob			No. Ordered ....
Keyseat			No. Furnished...
Shape			Wages $ .....
Drill.....			
	AMT.	MATERIAL USED	
Plane.....			
Grind.....			
Fit.....			
Cut. Teeth.....			
Babbitt.....			
Balance.....			
Assemble.....			

Employee .....No. ..... Date .....
Started .....Finished ..... Total Hrs. .....

EXHIBIT G

COST RECORD

Date Ordered .....193..... Job No. .....

Customer .....

LABOR					MATERIALS						
DATE	EMPLOYEE	HRS	OPERATION	AMOUNT	DATE	NO.	DESCRIPTION	PART NO.	LBS.	MATERIAL	CASTINGS

CANADIAN SUMNER IRON WORKS, LTD.

FOUNDRY REPORT

For .....193.....

JOB NO.	PART NO.	DESCRIPTION	REJECTED CASTINGS			GOOD CASTINGS			COST VALUE
			NO.	WEIGHT	TOTAI WEIGHT	NO.	WEIGHT	TOTAI WEIGHT	

MANUFACTURING STATEMENT
IRON FOUNDRY

	WHITE IRON	GRAY IRON	TOTALS
Good Castings			
Rejected Castings			
ACTUAL COST:			
Materials			
Moulding			
Overheal			
EST. COST:			

SUMMARY OVERHEAD

FIXED CHARGES:
- Depreciation
- Insurance
- Rent, Taxes & Water Rates
- Repairs
- Watching
- Power & Light
- Compensation
- Cartage

MISCELLANEOUS LABOR:
- Helping
- Cleaning
- Coremaking
- Pouring
- Breaking Iron
- Furnaceman
- Supervision

BRASS FOUNDRY

	Per lb.
ACTUAL COST:	
Materials	
Wages	
ESTIMATED COST:	

OVERHEAD DETAILS

	Machine Shop	Pattern Shop
Depreciation		
Insurance		
Rent, Taxes & Water Rates		
Repairs		
Wages—Unproductive		
Supervision		
Watching		
Auto Expense		
Power & Light		
Supplies		
Cartage & Delivery		
Compensation		
Actual Cost		
Estimated Cost (At 100% Prod. Labor)		

TRADING STATEMENT

Sales Per Work Sheet		$
Credit Notes		
Cost of Goods Rtd.		
Net Sales		
Cost of Sales Per Work Sheet		$
Foundry Adjustment		
Actual Cost		
Estimated Cost		
Brass Foundry Adj.		
Actual Cost		
Estimated Cost		
Machine Shop Adj.		
Actual Cost		
Estimated Cost		
Pattern Shop Adj.		
Actual Cost		
Estimated Cost		
Drawing Office		
Gross (Loss)		
" (Profit)		

PROFIT & LOSS STATEMENT

Gross Loss from Trading Statement		
Profit		
ADMINISTRATIVE EXPENSE.		
SELLING EXPENSE		
Salaries		
Travelling		
Auto Expenses		
Advertising		
Miscellaneous		
OFFICE EXPENSE		
Salaries		
Phones		
Stationery		
Depreciation		
Miscellaneous		
MISCELLANEOUS.		
Reserve for Bad Debts		
Interest & Exchange		
Discounts		
CARTAGE		
Truck Wages		
Depreciation & Ins.		
Supplies		
Revenue		
Gross (Loss)		
" (Profit)		

Sales Statistics

By MARTIN L. PIERCE
The Hoover Company, Canton, Ohio.

(Before Hamilton Chapter, March 24, 1932)

When the Statistical Society of London was organized in 1834, five years before the American Statistical Association, the prospectus announced that its functions were to "procure, arrange and publish facts calculated to illustrate the condition and prospects of society." The evaluation of "The prospects of society" was thus recognized in this early statement as a proper object of statistical research.

It was not by accident that the idea of utilizing statistics of the past condition of society for inferences concerning the future appeared in the prospectus of 1834. It was expressed deliberately and with comprehension of its significance.

In retail stores, in wholesale houses, and in the sales and advertising departments of manufacturing establishments, whether large or small, sales statistics are essential for the "evaluation of prospects."

One of the amazing things in industry is the fact that vast sums of money are being risked in enterprizes undertaken upon guess work. While some manufacturing enterprizes have been started only after a careful study of conditions, others have been instituted after a few enquiries and upon a decision to take the chance.

Much of this attitude is a legacy of the past when conditions were essentially different from today. In the earlier period of manufacture, the markets were clamoring for goods. The manufacturer had but two problems: first, to make the goods; and second, to get them within reach of the consumers.

Today the supply has caught up with the demand, and a third very important function devolves upon the manufacturer, namely: To develop his markets. This function involves first of all a thorough knowledge of his existing markets and all of those influences which are operating to affect them.

It seemed natural enough in the earlier stages of industrial development for the manufacturer to confine his attention to the making of goods and to entrust to an outside sales organization the second function of getting the goods to the consumer. It is still advantageous in many lines for the manufacturer to reach the retailer through jobbing connections, but no manufacturer, however, efficient and honorable the middleman handling his product are, can afford to be without first-hand knowledge of his markets.

Every manufacturer should know where his goods are sold; who buys them, and why they are bought; what type of men are selling his goods to consumers; what influences are affecting them; what their sales methods and costs are; to what extent they are real factors in making sales, and to what extent they are only order-takers.

The chief applications of statistics to the management of sales and advertising departments of manufacturing companies and to the administration of mercantile businesses are: (1) Market analysis (2) sales reports and records, (3) statistics used in retail stores, and (4) advertising statistics.

Market Analysis

In order to determine to which particular class of customers his sales campaign should be directed, a manufacturer finds it necessary to study his market carefully under present conditions of keen competition. Blunderbuss methods are wasteful; hence they are becoming antiquated. The demand for any article varies according to purchasing power, living conditions, occupations, racial characteristics, climatic conditions, and numerous other influences affecting the different classes of consumers.

The object of market analysis is to determine which class or classes of consumers constitute the potential market for the product, to ascertain where the class is located, and to find out what channels of distribution are most readily available for reaching them. In making such an analysis statistics are serviceable.

There are few commodities for which equal per capita sales may be expected in all sections of the market, provided the market is more than local in its scope. In each district there are numerous classes of consumers with widely different tastes and desires, and the relative proportions of these classes in different districts always vary.

In New York City, for example, the population of the metropolitan district in 1930 was 6,930,000. In the same year the population of the Cleveland metropolitan district was 900,000. From these figures it cannot be assumed that the New York market for any particular article is potentially seven times as great as that of Cleveland. New York represents the extremes of wealth and poverty. Park Avenue and the Lower East Side are at opposite ends of the economic scale. Their wants and their purchasing power are wholly unlike, and each differs from the large middle-class strata.

In Cleveland, the relative proportions of these several classes with their numerous gradations of purchasing power and of wants are not the same as in New York. The population of Cleveland, furthermore, differs in its composite parts from that of Cincinnati or other cities, and these differences in the make-up of the population affect potential demand. Another line of demarcation is between urban and rural districts. Because of these diversities, a reliable estimate of potential demand can seldom be made upon a gross per capita basis.

Differences in economic and social strata to be reached are as important in geographic location and density, if a sound system of distribution is to be worked out. Take the distributor who seeks to map out a selling campaign for a Catholic publication. It is essential that he take into account not merely the geographic distribution of the Catholic population, the regions where it is relatively dense, and the regions where it constitutes a small element in population; but he must take into account the distribution of that population through the economic strata of society. A method of distribution successful in New Orleans, where the Catholic population is dense and spread through all economic strata of society, might well fail if applied in Maine, where the Catholic population is relatively sparse and found mostly in the lower economic strata.

It is probably superfluous to dilate upon the influence of home ownership upon merchandising conditions; and yet is is suspected that there are many distribution and sales interests that have underestimated the weight of this factor in consumer demand, and some that have overlooked it altogether. It is certain, too, that the proportion of home owners will vary with different cities.

Communities made up of detached houses, such as are found to so large an extent in Detroit, Cleveland, Indianapolis, Buffalo and other cities of like character, will show a much greater ratio of dwellings occupied by owners than will those Eastern cities where the vast majority of the population reside in hotels, flats, and apartments. In the case of the latter communities, full justice could be done in the matter of home ownership only in the event that it were possible to embody with the statistics of the city proper the figures for surrounding suburbs.

Home ownership has a wider and more general significance than as a test of the financial responsibility of individual prospects for installment-plan selling. It is a well known and recognized fact that the average individual will take more interest in furnishing and ornamenting a home which he owns than one which he rents, and there are many persons who hesitate to acquire any more bulky possessions than are absolutely necessary so long as they occupy rented quarters with the prospect of removal once a year. This has a very noticeable bearing on sales of electric appliances.

To be effective, market analysis must:

1.—Lead to a better understanding of present markets, through an analysis of the actual consumers, their location, numerical strength, purchasing power, buying motives, and likes and dislikes.

2.—Lead to the discovery of unexploited markets, not only determining the location of these untouched territories, but analyzing their possibilities and limitations.

3.—Not only delineate the actual and potential market for the product itself, but also for any by-product of the industry.

4.—Result in a more accurate correlation of purchasing with production and sales. It must show why seasonable demand can be eliminated or made a much less important factor.

5. Reveal any error in the distributive system, or any failure of the product itself.

The best known factor in any market investigation will prove to be the product itself. The personal element, so often a complicating factor, is at a minimum. If, when starting a market analysis, the Company will begin with the product first, the survey is following out a safe principle—that of proceeding from the particular to the general, from the heart of the question outward. This has proved exceedingly helpful in keeping the investigation within the proper bounds.

Sales Reports and Records

Market analyses are valuable not only for indicating districts which are underdeveloped as markets; but, as has been indicated, they are especially useful in furnishing standards for rating salesmen. Yet whether or not an analysis of the market is made, salesmen's reports and salesmen's records are essential to proper sales management, and the summaries of district sales and of total sales provide the general management with vital information in forecasting future prospects.

From the individual reports sent in daily or at frequent intervals, statistical records are made out in order that total sales, district sales, and the sales of individual salesmen may be compared with previous records and with established standards. The more the sales pictures change, the more necessary it becomes to have the best possible information on average and peak requirements and the most advance notice of expected changes.

SALES STATISTICS

Mr. Henry D. Minich, Manager of the Department of Budget Control, Methods and Accounting Procedure of Grigsby Grunow Company, and of Majestic Households Utilities Corporations, says that one of the essentials of sales forecasting in relation to Budget Control is actual comparative figures immediately after the close of each period.

Sales records may include information ranging from simple sales reports to the research work of a private statistical organization. Most of such data was found to exist only in the heads of various individuals and one of the first steps was therefore, to organize this material and to reduce it to the form of permanent records that would be adequate without being bulky, burdensome, or expensive.

The form of the sales forecast depends upon the information required by the manufacturing division. Besides qualities, the manufacturing managers needed such information as grades, brands, colors, models, packages, and so on; and provision had to be made for incorporating it in the sales forecasts so as to furnish the basis for the manufacturing forecast.

Accounting information is seldom available in exactly the form needed to make correct comparisons with the forecasts. A subsequent check on the estimates is indispensable. It is most valuable when made while the subject is fresh and while the resulting information can still be utilized. It proved much better to have the accounting revised to fit the forecasts rather than to resort to forecasts of a makeshift nature in order to save a little accounting effort.

Management of sales is like the management of an army. The thing that counts is the attainment of the objective. It matters not whether 10 or 15 per cent. of the effort be spent in planning as compared with execution. No one will dispute the value of contact with consumers; but neither will anyone argue against the advantage of making deliveries when promised; of having the right designs, styles and the like; of being able to compete in terms of price and service; and of having stability of organization.

If the forecast materially aids in these things, and in the coordination of advertising, sales promotion, production; in making service and distribution available; in assuring adequacy (without surplus) of product where and when desired; then it is worth the diversion, if necessary, of a considerable amount of salemen's time. In the long run it results in more sales per dollar of expense, and in more profit per dollar of cost.

In one company it was found necessary to consider actual absorption of product by consumers. To this end sales representatives were required to supply:

1.—Actual figures of the stock at all points not yet in consumer's hands.

2.—Forecast of expected sales to consumers each month.

3.—A forecast of what they considered to be the proper stocks to carry at each point each month to meet the expected sales. Upon receipt and scrutiny of this information, the company sales—or factory shipments—were quickly calculated.

Upon being received in the general sales office, a summary was made for each product for all districts. This information was not only valuable for forecasting, but proved extremely useful in the conduct of sales activity. Inasmuch as many sales districts were involved, this work was largely delegated to the local sales managers who maintained independent sales records and who clearly were in the best position to know the prospects in their own territories. On

a certain date each month these forecasts arrived at the central office together with their summaries and explanations.

The local sales managers were also required to furnish an analysis of their forecasts which showed at a glance, by products for each territory, the variations in the new forecasts from those previous and from the actual figures for the corresponding period the year before. These analysis automatically provided that the local salesmanager saw his forecast in summary form before he submitted it.

Upon receipt in the central office they were examined by persons familiar with the general sales policies and with the situation in the various sections. If adjustments were necessary to compensate for errors or individual prejudices they were made before proceeding. After this they were consolidated and submitted to the general sales manager, together with a high-spot letter pointing out all major variances in trends from previous forecasts, and so on by sales districts and by commodities, and giving a brief account of the reasons advanced for all important changes.

This gave the sales manager an opportunity for reviewing the entire situation at regular intervals and for seeing which districts or commodities required the most attention. In some cases a mere scanning was sufficient; in others, exhaustive studies were sometimes required. Quick and drastic action was sometimes taken—days, and sometimes weeks before it would have been taken formerly.

When finally approved by the general sales manager, the necessary information was then forwarded to the other divisions. The manufacturing division received full details on quantities, by districts, which it used as a basis for its own forecast of materials. The purchasing department received all quantities for the commodities that were indicated for purchasing. The credit department received all information in dollar values by sales districts, and in certain cases, by terms or credits. The accounting and budget department of course, received all detail and from it set up comparative sheets ready to receive the actual figures as soon as they became available.

Retail Records

Of all the links in the chain of distribution, the retailer might seem to be in the best position to foretell events. Yet, as a matter of fact the average retailer is so close to his subject that he often loses his impartial viewpoint. He cannot disassociate himself from his activities.

In many ways a retailer has a more difficult sales problem than the manufacturer. In many cases he is selling a large number of lines and grades, each of which has its seasonal trends, individual ups and downs, and other perculiarities. He cannot study each individual item, consequently, he divides the store into departments, and takes statistics for the department as a whole for his guide. His study of outside conditions will have to be applied to the individual departments, both as to buying goods to be resold and as to selling and advertising methods.

The exact form of the sales record varies according to the requirements of each individual business and the greater the number of lines of merchandise carried, the more detail is needed in the sales record. A hardware dealer for example, will wish to have the sales records of his salesmen classified into at least half a dozen groups of articles in order that he may determine whether or not each salesman is developing properly the sales of the lines yielding the greatest profit. A hardware salesman whose sales of nails are increasing

and whose sales of cutlery are falling off is not a promising employee.

One problem of merchandising today is the accumulation of merchandise that does not sell. Rapid style change is sometimes responsible for accumulation. Frequent model changes of machines and equipment is sometimes responsible. Poor taste of the buyer or his tendency to buy his individual tastes, such as color, and design, is sometimes responsible. There are today not only styles in apparel and house furnishings, but even in plumbing and hardware.

In any event, it behooves the buyer to consult past consumption records and keep constantly in touch with style trends to avoid the accumulation of stock that must be sacrificed at no profit or frequently at a loss. If such articles do accumulate, a quick disposal is always wise as usually the first loss is the lesser loss and the proceeds can be re-invested in profitable merchandise.

It is common today in merchandising fields for profit sharing to department managers to be based not only on volume, but percentages of gross profits, rate of turnover, proportion of old merchandise on hand, and all the factors for which they are largely responsible.

The statistical records which are kept in retail stores are analogous to those kept in other mercantile establishments, but the form and the amount of detail vary greatly according to the size of the store and the nature of the business. In retail businesses, as in all other lines of business, the cost of keeping the statistical records has to be weighed against the advantages to be gained therefrom.

A small store cannot afford to use as elaborate a system as a large store. Even in the smallest retail store, however, there are some records that are essential—record of the sales of each salesperson, and either a stock or a purchase record. If the salesforce expense is to be kept at a minimum, the work of each salesperson is watched continually by means of accurate sales records.

In retail stores generally, one of the most serious causes of loss is a slow stock-turn, owing to over-buying or poor buying, and either a stock record or a purchase record is needed by every retailer. In a retail shoe store it is ordinarily possible to keep a record of sales and stock in detail, since the number of lines carried in a single store is not great. In a retail grocery store or in a retail hardware store, on the other hand, there are hundreds of different articles and brands which are sold in small quantities.

In such stores a continuous stock record cannot be kept without excessive expense. For stores of this latter class, some sort of purchase record offers the best means of checking up the rapidity with which the various articles move. If a card record is kept for each brand of merchandise and each purchase order is properly recorded, the retailer easily determines which brands are the "slow moves," and what changes in his buying policy are necessary in order to increase his stock-turn.

Many mercantile businesses, both wholesale and retail, and many manufacturers are constantly troubled with the return of goods from customers to whom they have been sold. Nice questions of business policy are involved in handling this problem of returns and the percentage of them will often influence the policy of the store in regard to returns. In many cases returns are entered upon the sales records of salesmen and upon customers' records, in order to provide information to aid in placing the responsibility, and thus in determining the policy of the management. Budget control will be inaccurate

unless exceptions such as these can be shown definitely and clarified.

Perhaps the most important statistical record in retailing is the group of figures which permits planning out purchases and establishing inventory quotas. Statistical merchandise control means conservative stock levels, an increased rate of turnover, new and fresh merchandise.

There are five points of contact for statistical merchandise control.

1.—Planning control.
2.—Purchase.
3.—Sales.
4.—Stock.
5.—Profit.

Advertising Records

An able ally of the sales and merchandising budget is the advertising or sales promotion plan which in a medium-sized business is likely to be controlled and determined by the merchandise manager and department managers. Advertising campaigns will be a part of the sales forecast and thus the hoped for results on sales will have to be used in the purchase budget.

Of the vast amount of money spent annually for advertising, an extremely large percentage is wasted, unquestionably. This means not merely individual loss, but social loss. It is a diversion of capital and productive energy into unprofitable channels.

The causes of this waste are numerous. The commodity in question may be one not possessing those elements of quality and service which constitute the demand on the part of the consuming public. Again, the medium used for the communication of ideas about the goods may not be one that reaches the particular economic or social stratum in which possible purchasers of the commodity lie. Another important cause of advertising waste lies in the failure to take advantage of aroused demand. The distributor often fails to give proper attention to the matter of the physical supply of his product.

But the great cause of waste is probably the fact that the ideas about the goods or the form in which those ideas are conveyed to possible purchasers, prove ill-adapted to secure the desired reaction, and thus to create in the consumer an effective demand.

If we apply to this pressing problem of advertising waste, methods of study which have proven efficient in other fields, the gain is clear. The engineer does not choose material for a bridge by building a bridge of the material and waiting to see whether it stands. He first tests the material in the laboratory. This is what the business man must do.

The statistician turns in his problems to the law of averages. He is familiar with what are termed mass phenomena. He knows that he can learn something of the average height of a body of people by studying the heights in a group of a few thousands of people drawn at random from the larger body. Provided that the smaller group is so selected as to insure that it is typical of the larger body and provided the group is large enough to render the law of averages applicable, the statistician knows when he has determined the average height of the smaller group that it will roughly coincide with the average height of the larger group.

This method of study is applied by the business man in testing the ideas and forms of expression to be used in a selling campaign. In direct advertising, the mailing of selling letters, circulars or cata-

logues to prospective purchasers to draw from them a stimulus and response adapted to direct statistical measurement. The number of responses per thousand communications can be determined. Here is the agency that the business man can employ in testing, under what are equivalent to laboratory conditions, the ideas and forms of expression that seem to him best adapted to awaken a demand for his product.

From a study of these four essentials of sales statistical records market analysis, sales reports and records, retail store statistics, and advertising records we can establish the following principles as factors in budgetary control.

1.—Utilization of those methods that will combine effectively the co-ordinated intelligence of the entire organization behind a pre-determined plan.

2.—Analysis of past operations, past performances, past expenditures, sales—in fact all those phases of the business that it is proposed to budget.

3.—Building up from the facts developed by analysis the trends and tendencies of the past.

4.—Ascertaining by rational judgment and isolating those factors that will influence the course of the business in the future.

5.—Ascertaining the places where control can be most effectively obtained initially, in the method, procedure, recording and performance.

6.—Developing the fundamental relationship between the various phases of the business—such as ratio of manufacturing expense to net production, to net sales, distribution expense to net sales, and the like.

7.—A pre-requisite to successful budgeting is adequate accounting and statistical records; for budgeting is dependent upon all the recorded date of regular routine wherein past performance may be determined and future possibilities outlined.

8.—Realigning the duties of the organization so that duties and functions are logically grouped.

9.—Correlation of the activities of the various functions of the business through executive control to prevent over, undue, or lack of emphasis on some important phase of the business.

10.—Carrying analysis far enough back over a sufficient period so that the law of averages, the swings or cycles, trends and tendencies can be fully developed; correcting for those influences that were purely accidental, so that representative standards may be developed.

11.—Segregation of all items of expense or cost into three groups: 1.—Fixed or non-variable; 2.—Semi or partially variable; 3.—Full variable.

12.—Determining the production capacity of the plant and breaking this down by departments, by sections, in well-balanced relationships, regardless of sales volume. Determine it also by classes of product.

13.—Through market surveys, determining the minimum volume at those price levels that the market will take up, which will absorb the great proportion of potential productive capacity.

Conclusion

Research work should not only be dominated by honesty of purpose, but it should be conducted from the student standpoint of truth for truth's sake. Lines of inquiry that appear likely to prove of practical value should, of course, be pursued. But that which appears academic should not be neglected, for it frequently happens that what appears to be academic turns out to be highly practical; while something which appears likely to be practical often turns out to have little value.

It is probably advantageous for a research worker to approach his problem without special knowledge of the particular industry to be studied. A man who has had several years of experience in any given industry has formed such definite opinions of that industry that he cannot easily formulate well-balanced judgments on its problems. The research worker's function, in some respects, is like that of the juryman, for whom one of the requirements is that he know nothing about the case.

In the influence held by a chief executive over the mentalities of his subordinates, whereby he secures from them the greatest possible producing effort, lies the real secret of his success. Many executives hold this influence by sheer personality. Others hold this influence by a combination of personality and the careful selection and provision of various schemes whereby the subordinates themselves are more or less automatically spurred on in their efforts.

It is a well-recognized fact that we are a nation of aggressive people; that we take business chances as a matter of course. The widespread interest in sports—golf, baseball, tennis, boxing, polo—is evidence of the sporting angles of the average American mind; the apparent evidence of a desire either to indulge in or to become interested in a game.

Budgetary control supplies to everyone in any kind of a business institution a species of game. The setting of quotas of performance and budgets of expense brings out a cool and calculating thought of the future and what it should yield. The daily watching of the current transactions becomes as fully absorbing as the watching of an electric scoreboard of a World's Series Game. A par has been set and must be beaten.

The psychological effect of bulgetary control is its greatest asset, and in this feature alone, it takes its place as perhaps the most valuable of all more or less mechanical management aids.

The Prospect of Discovery

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(Before Montreal Chapter, April 8, 1932)

THE business engine is labouring heavily, it cannot develop normal speed, it refuses to carry any reasonable load. In a like case, the fair lady told the mechanic that she did not know what had caused the breakdown, but she did remember the noise in the top and the rattle in the door. Wise in human nature, as well as in cars, he looked to see whether there was plenty of gas; he determined

that there was nothing wrong with the feed and eventually found that the real trouble was in the distributor. Before an attempt to repair the business engine, it may be just as well to make a more or less general examination of the car so that our attention shall not be distracted by irrelevant noises which may show defects but are not indicative of the real cause of the breakdown.

Production or Distribution at Fault?

In Canada there is much discussion about too great production of wheat, newsprint and lumber. In other countries a like comment is made concerning rubber, sugar, cotton, wool and almost every other commodity. In fact, it is said that the world has been producing too much of everything and that the people are short of food this winter because there is too much food in the world. Allegorically at least, there is not too much gas; it is distribution which has broken down.

On the whole, the total world production of manufactured products and of each of the great staple commodities has advanced with almost monotonous regularity in each of the past seventy-five years for which we have relatively complete statistics. On the average, each year has witnessed an increase in each country's production of wealth. This additional volume of production in each country has been consumed at home or else it has been exchanged for goods from other countries, augmenting the wealth and consumption of both the buyers and the sellers. The regularity of this expansion was broken by the war and the post-war depression. The present is the first major interruption in the regularity of expanding production that has occurred when there was peace in the Western world. For the statistical basis of these statements I would refer you to the Monthly Letter of The Royal Bank of Canada for June, 1932. The statistics there presented are the work of Dr. Carl Snyder of the Federal Reserve Bank of New York. While there were a few industries with excessive inventories in the hands of the producers in 1929, I think that a short study of these facts would lead you to agree with me that it was not general overproduction that caused the depression.

Gold.

The second popular scapegoat is gold. It is said that is a shortage of gold that is reducing prices. While I shall again refer to gold as a basis for credit, it will be sufficient for the moment to state that there is more monetary gold in the world at the present moment than there was at the beginning of 1929. In 1928 and 1929 the world's gold was sufficient to maintain a healthy price structure. It is clear however, that there is not sufficient gold in many countries or there would not have been a suspension of gold payments, but this is maldistribution of gold, not a shortage. The countries which have most heavily increased their gold supplies have reduced the volume of outstanding credit. We shall revert to this point under another heading. It is not true, then, that it is gold shortage which is causing the continued decline in world prices at a time when there is a reduced volume of production. This same retort may be used to dismiss the arguments of those who advocate the use of silver to augment the metallic backing for money. Contrary to the general impresson, the fall in the price of silver brought advancing prices and relative prosperity to silver standard countries.

It did not materially limit their buying power in foreign markets, since their purchases are paid for with goods and not with money. Their purchases abroad have been cut down by the incapacity of foreign countries to buy the products of the Orient. Let me reiterate that it is not shortage of metallic backing for money that is a prime cause of falling prices.

Tariffs and Debts.

It is not quite so easy to check over the next two parts of the engine—tariff barriers and war debts. Tariff barriers have hindered the free interchange of goods and the recent increases in tariffs are more than likely to delay recovery. There is some room for hope that the new tariffs in Great Britain may cause some countries to see the folly of placing further restrictions on world trade and thus lead to a concerted movement toward lowered tariffs. I have no great faith however, that this will be the outcome. It is noteworthy that trade was falling off rapidly before the latest epidemic of tariff increases had set in. While the tariff barrier, a device to increase national production at the expense of other countries, hinders the balanced growth of international prosperity, there was no sufficient change in tariffs just prior to the downward turn in trade to account for the drastic downward movement. This was not a primary cause, even though tariffs have had a restrictive influence upon the payment of war debts, and all other debts payable across international boundaries. As prices have continued to fall, the burden of these debts, as well as that of other long-term debts such as bonds and mortgages, has been increased by 50 to 75 per cent. It is coming to be recognized that there must be a major rise in prices or there will be heavy cancellations of a substantial proportion of such obligations. One thing or another is inevitable; prices must rise or there will be a wholesale cancellation or repudiation of such debts. For the same reason a continuation of the present price level will bring on wholesale bankruptcies.

Extravagance.

There is one more bogey to be dismissed. The car had not been speeding so fast that its engine could not stand the strain. In some instances, undue extravagance may have produced unsound situations, but, by and large, total wealth was increasing at a more rapid rate than debt. Consumption had to be increased steadily, not decreased, if balance were to be maintained. It is the fall in prices which has enormously increased debts in relation to production. Even extravagance proves on close examinaton to be a mere rattle of the door rather than a fundamental defect in the engine.

What was it then that caused the sudden dropping off in consumption. What is wrong with the distributor?

Capital Investments.

My favourite illustration of the sequence of events which caused the breakdown is furnished by the story of the investments in South America. In the years between 1922 and 1927 the United States invested about $200,000,000 a year in the republics of South America. While some of these loans may have been unjustified, the net effect of this investment of new capital was a rapid expansion in the productive capacity of this area; an increase of $1,000,000,000 in annual exports, an increase in its purchasing power and a corresponding

increase in its imports. The scale of living improved.

Then came the sudden change. With high interest rates in the call money market in the years 1928 and 1929 bonds ceased to attract investment. New money no longer flowed into South America; railroad construction and harbour and river improvements stopped; wages began to fall off. For the same reason a like process was taking place in Europe and in other countries. Demand for South American products fell off and the purchasing power of these countries fell rapidly. They ceased to import goods from other parts of the world and business came to a standstill. When the total volume of credit falls off there is a corresponding reduction in buying power. Although finished inventories had not piled up because buying power was more on a hand-to-mouth basis than it had been before previous depressions, inventories of raw products in all parts of the world increased. It was this increase that led to the assumption that there was overproduction. It is noteworthy, however, that commodity prices had begun to fall long before the break in the stock market.

When credit was expanding at the same rate as production, the price level remained steady. It is true that the price level depends upon the ratio of credit and production. When credit expands excessively, prices rise, and when credit is unduly contracted, prices fall. When the volume of credit is kept proportionate to the volume of production, prices remain stable. These last three sentences constitute the whole story of what was wrong with the engine and tell how distribution can again be made to function.

Restricted Credits.

When high prices for call loans cut off the supply of funds available for business and so increased the cost of what credit was obtainable that it could not be used profitably in business, it was inevitable that production should begin to fall off. This was the fundamental cause of the breakdown. When it is realized that this was the major reason for the depression, the remedy becomes self-evident. When credit is made plentiful, business will revive. Credit is neither cheap nor plentiful in gold countries at the present moment. The man in need of credit for the conduct of his business cannot secure it upon the basis of what would constitute ordinary banking risk. In this respect the banking system of no country in the world has stood by the commercial community more loyally and courageously than have the banks of Canada.

Those who believe that deflation must be allowed to run its course hold the opinion that the outstanding volume of credit is dependent upon volume of business. They fail to understand the relationship of credit and production to price level. It is their contention that as the volume of business has fallen off, it has been followed by a proportionate decline in outstanding volume of credit. It is my contention that volume of credit has fallen faster than volume of production and that it is this relationship which has produced falling prices, and further, that prices will continue to fall until credit contraction has been halted. There cannot be a return to the price level of 1926-28 unless credit expansion is more rapid than increase in production, and a return to that price level is essential if the world's load of indebtedness is to be tolerable.

In the months which followed the crash in security prices, the volume of world trade declined steadily and prices fell. As gold accumulated in the creditor countries, France and the United States, these countries did not increase their volume of outstanding credit;

they permitted it to continue to contract. Even in recent months the weekly returns of the member banks in the United States show a decline in loans and investments of $2,000,000,000 since the first of November; $3,000,000,000 since the last of September, and $4,000,000,000 since April, 1931. No nation can stand such a contraction of credit.

We should like those who believe that the decline in credit is an effect and not a cause of declining prices, to explain the phenomena which we see in countries such as Argentina, Brazil, or Spain which have what in effect is a fiat currency. These countries have felt the depression in a much smaller degree than those countries which remained on a gold basis or have only recently abandoned it. Let us confine our remarks to Brazil, a country in which so many Canadians have a vital interest. It is Brazil, which furnishes the example of the greatest overproduction of a single commodity in economic history. Notwithstanding this, the internal price level in that country has not declined and business failures are at a low level. In the United States Department of Commerce publication, "Commerce Reports", for January, it is said, "No important failures were recorded during the past quarter, and from the Bahia district no report of failure was received on any firm covered by World Trade Directory Report". The situation, then, in Brazil stands in sharp contrast with that in Colombia and Chile, which have maintained the gold standard. Unemployment mounted to unprecedented levels, business failures were general and suffering has been acute.

Effects of Dropping Gold Standard.

On the whole, the countries which abandoned the gold standard have failed to recognize the full measure of advantage which has accrued to them as a result of their opportunity to control their own price level. The attitude of governments, the press and the public in these countries is that misfortune has overtaken them which will be overcome at the earliest possible moment. While the monetary loss to government bodies, and to those other organizations owing debts abroad, is almost exactly offset by the gain of another class, namely, the exporters, the net benefit in the form of checking deflation and improving the price level is a positive advantage of outstanding importance.

It is the gold countries where the most acute trouble now exist, since their price level is still falling. In the United States and France the trouble has been aggravated by unprecedented hoarding, which is the worst form of credit contraction. What then is the probable trend of the price level in the gold countries? There is now a market for gold in two countries only—France and the United States. The increased value of gold has stimulated mining and the two greatest producers, South Africa and Canada, have made new records during the past year. Canadian production for 1931 showed an increase of 27½ per cent. And in India the world has discovered a new gold mine! More than £40,000,000 of gold has been shipped from India within the past six months. This is an unprecedented movement, sharply reversing the trend of centuries. No reliable statistics of Indian gold holdings are available, but it is probably no exaggeration to say that they have the greatest supply of any country in the world. Cheap silver offers a satisfactory alternative for their hoarding purposes. If they increase their holdings of silver in place of gold, this new hoarding might provide an answer to the silver question. There are large stocks of gold in other coun-

tries, notably Spain, Argentina and Uruguay, which will continue to seep into the gold countries. It is only because of hoarding that this movement has not already produced a rising price level. That these new supplies of gold must eventually produce their usual results in raising prices, there can be no room for doubt. It is true, however, that the present disorganization of business and the general lack of confidence is so extreme that even large new supplies of gold may not have sufficient immediate influence to prevent further deflation. Confidence cannot be attained as long as the outstanding volume of credit is constantly being reduced. On the 21st of October last, Federal Reserve credit outstanding amounted to $2,194,000,000; on March 30th this figure had fallen to $1,571,000,000; the decline amounted to $623,000,000. During the same period, Federal Reserve note circulation in creased by $163,000,000, the latter figure being offset by an increase of $254,000,000 in gold reserves. It is safe to say that the total increase in Federal Reserve notes represents hoarding, and if this is correct there has been a decline of $532,000,000 of Federal Reserve credit. Since it is generally reckoned that when Reserve credit is pulverized into commercial credit it increases ten times over, it is not hard to understand the fall in commercial bank credit to which I have referred.

Plans in United States.

Comprehensive plans to stem deflation are being developed by the Administration in Washington. The Credit Corporation, organized privately with capital supplied by commercial banks, was able to stem the crisis of October, although their operations amounted to no more than a gesture. The Reconstruction Finance Corporation, which took its place, is the most important unit in the Hoover programme. Other units will provide mortgage funds for residential buildings and assistance to land banks. If these agencies are courageously managed, they would sufficiently seem to provide all reasonable requirements. This has proved to be the case, so that a marked reversal of hoarding has set in. Only a return of confidence in financial institutions is required to reverse the trend of business.

There are also other important factors working toward "reflation". All government bodies are finding it practically impossible to balance their budgets. The first influence of an unbalanced budget may be to injure confidence to such an extent as to destroy part of the outstanding volume of credit, but sooner or later the borrowing to make up these deficits must tend towards producing the larger volume of credit necessary for expansion. Mr. Mills, the new Secretary of the Treasury of the United States, in a number of speeches has favoured a more liberal credit policy on the part of the Federal Reserve Banks. While the present situation is critical, the inflow of gold, the Hoover programme and government finance are working toward an improvement in the price level. It is conceivable that all of these agencies together could be defeated by an adverse policy on the part of the Federal Reserve Banks, but the position of the Secretary of the Treasury in relation to the financial system of the United States is sufficiently powerful so that there is room for hope that the Reserve policy will be in harmony.

This was the situation before the introduction of the Glass-Steagall Bill .In the past, the character of the bills which member banks have been able to discount have been limited to high class trade paper or loans secured by Federal Government obligations. This

Bill provided a much more liberal interpretation of eligibility: in fact, it allowed the Reserve Banks to use discretion so long as they are satisfied as to safety. This provision should be of the greatest possible benefit in assisting moderate sized banks, most of which had no eligible paper to offer for discount. But perhaps the most outstanding contribution to the reconstruction programme is the provision making government bonds eligible as security for the note issue. The so-called "free gold" held by the Federal Reserve Banks had been steadily reduced, until it stood at a figure of less than $400,000,000, an amount less than the sight balances held by France in the New York market. This was the reason for the opinion recently held in Europe as to the danger of the United States suspending gold payments. The provision referred to adds nearly $800,000,000 to "free gold" stock and removes any possible doubt as to the ability of the United States to maintain the gold basis. It gives the Federal Reserve Banks the ability to frame a financial policy without reference to the reactions of other financial markets. Plainly, the policy of the Federal Reserve in recent months has been inhibited by the fear of withdrawal of European balances and raid on the dollar by speculators. Not only is the fear of the suspension of gold payments removed, but now the Federal Reserve Banks have the means to nullify the disastrous effects of hoarding by increasing the circulation as fast as hoarding takes place, or actually to increase the effective supply of money if this seems a desirable policy. This development seems to present clear evidence that the factor which appeared doubtful up to ten days ago, namely the Federal Reserve policy, is now aimed definitely at the reversal of deflation. In the bank publications we have repeatedly pointed out that the legal limitations on the character of the assets which the Federal Reserve Banks might acquire have limited their ability to take dynamic action.

An under-powered machine has been converted into one with sixteen cylinders. A high-powered car, however, may remain stuck in the mud or even sink further if the chauffeur does not know what is required or if he is badly advised from the back seat. If it is once out of the mud the car will have to be driven more carefully; there is even some danger of giving it too much gas. If the passengers are to have a comfortable trip it is essential that recovery shall obey the speed laws and that those in control shall watch the signs of the road.

The Price Problem.

Until the gold countries can devise the means of raising their prices and creating manageable machinery which will ensure a greater measure of stability, other countries should hesitate to re-adopt the gold standard. Indeed, unless the gold countries are prepared to conform to certain conditions within a reasonable period of time, it is by no means beyond the bounds of possibility that new system of money and exchange might be developed, based on a central unit intelligently managed and stabilized in relation to the index numbers of the price level. I do not need to suggest to you that sterling is the logical basis of such a system. The traditional position of sterling as the world's medium of exchange, the position of London as the world's banking centre, her wealth of experience, her splendid banking system, at the centre of which the Bank of England operates without the stringent restrictions and inhibitions of the central banks of France and the United States, form a combination ideally designed

for this purpose. Within the Empire, except in Canada, no basis changes are needed to bring this about; the rupee of India is really a unit of sterling. The Scandinavian countries immediately followed sterling off the gold basis and have seriously discussed stabilizing their currencies in terms of sterling. It requires no great stretch of the imagination to visualize a similar change in other European countries, Japan and South America.

Does this suggestion contain anything of interest to Canada? I think it does. Early in the present session of parliament a resolution was adopted which expressed the view that stabilization of our currency was desirable. Discussion of the measure did not produce a clear definition of what was intended. Those who proposed it evidently hoped to suggest the desirability of stabilizing the general price level. To others who voted for the resolution it undoubtedly conveyed the idea of stable exchange quotation, either in terms of American dollars or some other important currency such as sterling. To many it possibly conveyed no meaning whatever. It seems inevitable that an attempt will be made at the coming Imperial Conference to provide greater stability in Empire exchanges in order to assist in the greater development of intra-Empire trade and remove the irritations inherent in the necessity for Canada's applying the dumping clause to British goods.

Canada's Position

Let us endeavour to determine the effect of such a development upon Canadian business. In the middle of last December the premium on New York funds was 25%; today it is 11%. From this change it is apparent that deflation in Canada in the intervening period has gone ahead at a more rapid rate than in the United States. We were spared the violence of the crisis in that country by the depreciation in our currency, as represented by the premium on New York funds, but unless we are prepared to take some action to prevent a further contraction of the Dominion note issue the improvement in the volume of business which usually occurs in the spring seems likely to result in a further reduction in the premium on New York funds. This is a very serious prospect. Already our export business has been most adversely affected by the competition of countries whose currencies have depreciated in terms of gold to a greater extent than ours. Thus, Argentina and Australia are rapidly selling wheat at profitable prices and Canadian flour millers are being forced out of all export markets by English millers. Scandinavian pulp and paper mills have drastically cut prices in the United States, although receiving higher prices in terms of their own currency than they were before they abandoned the gold standard. These are only outstanding examples which are typical of every community for which we find a market outside the country. Not only is this true of our foreign markets, but it is correspondingly easier for those countries to sell goods in Canada. What such developments have meant in increasing unemployment can be left to the imagination. A satisfactory agreement with other British countries is impossible while we suffer from this handicap.

The discount on sterling in terms of gold is 23% against a fall in price level of 30% during the past two years, but many adjustments to the lower price level have been made so that a 29% premium would go far to rehabilitate industry and make the present burden of debt tolerable. Financial authorities in London are undoubtedly

taking strenuous measures to prevent the value of sterling from rising until such time as there is a rise of prices in gold countries. And even if they were not entirely successful in such efforts, we would at least be competing on an even basis with a large proportion of the business world and with a much larger advantage than at present, with gold countries. As I have already pointed out, if we are to trust accepted monetary theory and previous experience we can in due course expect a depreciation in the value of gold, or, in other words, a rise of prices in the United States and France.

Exchange Relations.

While we have emphasized the great positive advantages of an increased premium on gold, the objection might be raised that there would be a heavy strain, due to the large amount of our debts payable in the United States. It is true that many corporations, whose bonds are payable in gold, would experience a substantial increase in interest charges, but, in most cases, this would be more than offset by increasing volume and profits of business. In the case of our Federal Government, customs' revenue would probably not increase very much because imports would certainly be restricted in relation to exports, but it seems safe to assume that we would not import much less but would undoubtedly export much more, the surplus exports enabling us to import more than would at first glance seem likely. The sales tax would, of course, be increased, first, by the percentage rise in prices and second, by the percentage increased volume of business and, since general business would again become profitable, income tax would certainly increase very substantially. Besides the increase in income should also be set a very marked reduction in expenses of social services, particularly unemployment relief. Provinces and municipalities would be quite hard hit by foreign debt services, but would also probably benefit through reduction in unemployment relief by a very large sum. One would have to have particulars of their foreign debts and present expenditures of unemployment relief to estimate the net result, but it should not be a vain hope that under the circumstances mentioned unemployment would largely disappear before next winter.

I have been much impressed with the tremendous drawing card to tourists resulting from a depreciation of 25% in Canadian funds. This would also be a factor deterring Canadians from visiting the United States, and particularly the great summer migrants to the coast of Maine.

It is clear, however, that if the value of gold should decline to a point where gold currencies are again quoted at par in sterling, and this means that the price level of gold countries would rise to the price level of Great Britain, all sterling countries would be, for practical purposes, back on the gold basis. Before accepting this position it would be proper for Great Britain to assure herself that the central banking machinery of the more important countries had been so changed as to ensure that the disaster which has overtaken the world can never happen again. The formation of a sterling bloc would constitute a most effective threat against the value of gold and this, together with the increased supply of gold, would accentuate the tendency toward a rise in prices.

It would of course be prudent to enquire the plans the British government propose to follow in controlling the value of sterling. We think it can be assumed however that definite plans have been

worked out so that the remarkable improvement which has accrued as the result of the depreciation will not be lost following the rapid increase in the value of sterling in terms of gold. As pointed out by the MacMillan report a substantial increase in prices in England is wholly desirable and this can only occur gradually to the extent that sterling remains depreciated in terms of gold, but if we cannot trust the experience and intelligence of the English financial authorities there is nowhere else to look for financial sanity. We paraphrase the words of Kipling,—

Who stands if England falls?
Who dies if England lives?

THE TREND OF PRODUCTION COSTS

Commodity prices, as measured by the Dominion Bureau of Statistics index number which is based on the year 1926, moved down from 67.7 for May to 66.6 for June. The following is a comparison by main groups:

	June 1931	May 1932	June 1932
Foods, beverages and tobaccos	68.9	60.6	59.7
Other consumers' goods	80.2	78.7	78.6
All consumers' goods	75.7	71.5	71.0
Producers' equipment	89.1	88.2	88.1
Building and construction materials	82.8	78.0	76.9
Manufacturers' materials	61.9	58.6	56.7
All producers' materials	65.7	62.1	60.4
All producers' goods	68.0	64.7	63.2
All commodities	71.9	67.7	66.6

The principal declines in June were in the following: Foreign fresh fruits, canned fruits, grains, flour and milled products, fishery products, leather, raw cotton, flax, hemp and jute, raw wool, wood pulp, lead, and coal tar products. The principal increases were in the following: Dried fruits, eggs, and sulphur.

"Gus," said Bill, as he caught up with Gus on the way back to camp, "are all the rest of the boys out of the woods yet?"

"Yes," said Gus.

"All six of them?"

"Yes, all six of them."

"And they're all safe?"

"Yep," said Gus, "they're all safe."

"Then," said Bill, his chest swelling, "I've shot a deer."

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Hints for Husbands—News item: Wife scolds husband because he come in late. He overcome this—doesn't come in.

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Professor: "Can you give me an example of a commercial appliance used in ancient times?"

Student: "Yes sir; the loose leaf system used in the Garden of Eden."

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Widow writing a testimonial for a life insurance company. "On August 9th my husband took out a policy. In less than a month he was drowned. I consider insurance a good investment."

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Nature Lover (gazing at tree): "O wonderful, mammoth oak, if you could speak, what would you tell me?"

Gardener (nearby). "S'cuse me, mum, but 'e would probably say, 'If you please, mum, I'm not an oak, I'm a spruce."